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94RF12301



EG&G ROCKY FLATS

EG&G ROCKY FLATS, INC

ROCKY FLATS PLANT, P O BOX 464, GOLDEN, COLORADO 80402 0464 • (303) 966-7000

December 14, 1994

94-RF-12301

Kurt Muenchow
Environmental Restoration Division
DOE, RFFO

OPERABLE UNIT SEVEN (OU 7) TRANSFER OF DECEMBER 8, 1994 AGENCY MEETING MINUTES

Action **None Required**

The minutes from an agency meeting held December 8, 1994, are attached As a result of that meeting, EG&G received three action items which are detailed below

EG&G will prepare three separate position papers to address management strategies discussed during the agency interface meeting. Specifically, EG&G will provide a regulatory analysis from both a CERCLA and RCRA standpoint to justify consolidation of the contamination that has been released from the landfill, EG&G will provide background information, and regulatory and technical requirements to justify the abandonment of 26 wells located under the footprint of the landfill cap, and EG&G will provide documentation concerning the classification of 64 RCRA drums from the Phase I Field Investigation for disposition determination.

For further information, please feel free to contact me at extension 8553

James M. Smith

Laurie J Peterson-Wright
Operable Unit 7 Project Manager
OU 5, 6, & 7 Closures

LJP cb

Orig and 1 cc - K Muenchow

**Attachment
As Stated**

IN REPLY TO RFP CC NO

ACTION ITEM STATUS
☐ PARTIAL/OPEN
☒ CLOSED
 LTR APPROVALS

ORIG & TYPIST INITIALS

ADMIN RECORD

A-0007-000298

**OPERABLE UNIT 7 AGENCY INTERFACE MEETING
STRATEGY FOR LANDFILL CLOSURE
December 8, 1994**

Meeting Objectives

The purpose of the meeting is to present DOE's management strategies and solicit approval from CDPHE and EPA on the following issues related to closure of the Present Landfill at Operable Unit 7

- abandonment of existing monitoring wells
- disposition of investigation-derived materials from the Phase I RFI/RI
- establish the area of contamination
- cancel transfer of OU 6 IHSSs to OU 7

Abandonment of Existing Monitoring Wells

*outcome → will provide
Proposal from EGG/DOE TO EPA & CDPHE*

Currently there are 59 groundwater monitoring wells (53 active and 6 abandoned) located at or near the Present Landfill. Twenty-seven were installed as RCRA regulatory wells and are currently sampled quarterly for the RCRA groundwater monitoring program at the Present Landfill. Twenty-five were installed as CERCLA characterization wells and are currently sampled quarterly for the sitewide groundwater monitoring program. One was installed as a special purpose well and is also currently sampled quarterly. Six damaged RCRA-characterization wells were abandoned in 1993. The purpose of all 59 wells installed at or near the Present Landfill is summarized below.

In 1986, two wells pairs were installed to characterize the hydrogeology in the vicinity of the landfill. One well pair was installed upgradient (0986 and 1086) and the other downgradient (0786 and 0886) of the landfill. In addition, wells 0586 and 0686 were installed in the unnamed tributary to North Walnut Creek above the confluence with North and South Walnut Creeks.

In 1987, 17 monitoring wells were installed to characterize the site and determine the effectiveness of the groundwater intercept system and slurry walls. Well 5887 was installed upgradient immediately west of the landfill. Eight wells (5987, 6087, 6187, 6287, 6387, 6487, 6587, and 6687) were installed across the groundwater intercept system. Five wells (6787, 6887, 7087, 7187, and 7287) were installed to evaluate the north and south slurry walls. Three wells (4087, 4187, and 4287) were installed downgradient of the East Landfill Pond embankment to monitor groundwater leaving the landfill.

*see notes
page 4*

In 1989, 13 monitoring wells were installed. Well B106089 replaced well 5987, which was drilled into the clay seal of the groundwater intercept system. Six wells (B206189, B206289, B206589, B206689, B206789, and B207289) were drilled to locate and monitor potential subcropping sandstones around the East Landfill Pond. Two wells (B206389 and B206489) were installed to evaluate the effectiveness of the slurry walls. Two wells (B206889 and B206989) were installed to monitor the groundwater in the vicinity of the discharge points for the groundwater intercept system, and two wells (B207089 and B207189) were installed to monitor bedrock sandstones encountered in wells 0886 and 4187.

Three CERCLA characterization wells (76792, 76992, and 77392) were installed and sampled in 1993 for the Phase I RFI/RI at OU 6. Sixteen CERCLA characterization wells (70093, 70193, 70293, 70393, 70493, 70593, 70693, 70893, 71193, 71493, 71693, 71893, 72093, 72293, 72393, and 72493) were installed and sampled in 1993 for the Phase I RFI/RI at OU 7. Four CERCLA characterization wells (52894, 52994, 53094, and 53194) were installed for the Phase II RFI/RI at OU 7. These wells will be sampled monthly for four months beginning in December 1994. After the CERCLA characterization is completed the wells will be sampled quarterly under the sitewide groundwater monitoring program. Due to their downgradient location, wells 52894, 52994, and 53194 could be designated as compliance wells.

Abandoning Existing Monitoring Wells (Under Landfill Cover) - DOE proposes to abandon 24 monitoring wells that fall under the footprint of the proposed landfill cover as follows

0786	5887	B106089	71193
0886	6187-	B206289	71493
	6287-	B206489	71693
	6487-	B206589	71893
	6587-	B206789	72093-
	6687		72293
	6887		72393
	7087		72493
	7287		

EPA - concerned
about monitoring
effectiveness of
slurry walls -
will address in
IM/IRA or
Design

see notes
page 4

These wells were installed to characterize the site, determine the effectiveness of the groundwater intercept system and slurry walls, monitor potential subcropping sandstones around the East Landfill Pond, and characterize leachate within the landfill. The original purpose of each of these wells has been fulfilled, and the wells are no longer needed. The wells fall under the proposed footprint of the landfill cover and would compromise the integrity of the cap and cause problems in terms of differential settlement, which is unacceptable to DOE.

As part of the pre-construction site improvement process to facilitate cap construction, DOE proposes to abandon these 24 wells in 1996 under the Well Abandonment and Replacement Program (WARP). DOE proposes to discontinue the quarterly monitoring of these wells in 1995.

DOE proposes to stop sampling monitoring wells located outside of the proposed footprint of the landfill cover on the north and south sides to lower operation and maintenance costs during the 30-year post-closure care period. DOE will continue collecting water-level measurements to monitor the potentiometric surfaces and evaluate the effects of the remedial design on groundwater flow. Remaining monitoring wells upgradient and downgradient of the landfill will be evaluated for use in the post-closure groundwater-monitoring network.

These changes require approval from the RCRA Subpart D and F groups at CDPHE and EPA.

Disposition of Investigation-Derived Material from the Phase I RFI/RI DOE/EGIG
will provide proposal to EPA & CDPHE

Disposition of the 227 drums containing investigation-derived material (IDM) generated by drilling activities during the Phase I RFI/RI will be presented in the IM/IRA Decision Document for Landfill Closure. No IDM drums were generated during the Phase II RFI/RI. Soil IDM has been classified in accordance with the risk-based disposition procedure in 4-H46-ENV-OPS-FO 29, *Management of Soil and Sediment Investigation-Derived Materials*.

Chemical concentrations of various constituents in soils from OU 7 are classified by analytical results from corresponding field samples (borehole samples) as one of the following:

see notes
page 4

(1) Two hundred eleven drums contain soils that do not exhibit hazardous waste characteristics, do not exceed adjusted TCLP regulatory levels (6 CCR 1007-3 Section 261.24), RCRA risk-analysis criteria, and inclusive risk-analysis criteria, do not contain metals above background or organics above the detection level, and can be managed as uncontaminated waste. IDM in interim storage will be disposed in the landfill in accordance with 4-F99-ENV-OPS-FO 23, *Management of Soil and Sediment IDM*.

(2) Sixty-four drums contain soils that exhibit hazardous waste characteristics or exceed adjusted TCLP regulatory levels or risk-analysis criteria and will require management as RCRA hazardous waste.

(3) Two drums contain soils that do not exhibit hazardous waste characteristics, do not exceed adjusted TCLP regulatory levels or RCRA risk-analysis criteria, but do contain IDM constituents of concern exceeding inclusive risk-analysis criteria require management as non-RCRA (or CERCLA) waste containing constituents of concern. Disposition of CERCLA IDM in interim storage will be presented in the IM/IRA Decision Document for Landfill Closure, which is considered the equivalent of a Record of Decision in Section I B 10 of the Interagency Agreement. DOE proposes to dispose of CERCLA IDM in the landfill.

Establish the Area of Contamination

DOE proposes to establish the area of contamination (AOC) at OU 7 as shown in the attached figure. This area includes the Present Landfill, asbestos disposal areas, pond sediments, and soils in spray evaporation areas.

The technical and regulatory justification for this approach is as follows: (1) asbestos and unused plutonium molds were disposed outside the existing landfill, (2) including the pond sediments in the same AOC with the landfill is consistent with EPA guidance from the Superfund Land Disposal Restriction Guide (Number 5), which states that an AOC includes the waste source and the sediments in a stream contaminated by the source where the contamination is continuous from the source to the sediments, (3) including surface soils in spray evaporation areas in the same AOC with the landfill is consistent with OERR Directive 9345 3-02, which states that an AOC includes a waste pit, landfill, or waste pile, along with the surrounding contaminated soil, and (4) landfill wastes, sediments, and soils within the AOC have common constituents. This approach allows contaminated media to be moved within the AOC without triggering LDRs.

Extending the AOC will enable DOE to develop a comprehensive remedial alternative that addresses all contaminated or potentially contaminated media at OU 7 and to close the entire OU in 1998 rather than just the Present Landfill. The preferred alternative will be presented in the IM/IRA Decision Document for Landfill Closure as a final action. Although state and federal regulations require only 6 inches of clean soil over buried asbestos, DOE proposes to encompass the asbestos disposal areas within the slurry wall and beneath the composite landfill cover. Developing a comprehensive remedial action will allow the schedule for final closure to be accelerated and will be more protective to human health and the environment.

DOE will present the proposed AOC as a potential area of concern (PAC) in the quarterly update which serves as an amendment to the Historical Release Report in accordance with Section I B 3 of the IAG.

Cancel Transfer of OU 6 IHSSs to OU 7

DOE proposes to cancel the transfer of OU 6 IHSSs 166 1, 166 2, 166 3, and 167 1 to OU 7. Based on the OU 6 CDPHE conservative screen results presented in a letter report to the agencies, these IHSSs are not considered a source for OU 7.

CDPHE Agreed
EPA Agreed.

Notes

Introductions were made. Kurt Muenchow made the Agencies aware of possible delays and concerns with treatment of OU 7 seep water. Arturo Duran (EPA) recommended use of OU4 for storage. Arturo Duran clarified the 6-month time frame.

Well abandonment. Arturo Duran (EPA) expressed that effectiveness of the slurry wall must be assessed and some wells may be needed. EG&G will take the action to research how effectiveness of the slurry wall. ^{to measure the}

Also discussed; the mechanism for proposal of well abandonment. Kurt Muenchow (DOE) asked for informal comment, and will follow with a letter proposal from DOE. ^{From EPA/CDPHE}

Arturo: RCRA drums that meet TCLP and LDR can be dispositioned in the landfill. EG&G/DOE will take the action to review the RCRA drums and provide a letter to ~~the~~ EPA/CDPHE.

Establish Area of Concern EG&G/DOE ~~with~~ will provide a proposal with regulatory citations. The proposal will be sent to EPA/CDPHE for review. The regulatory analysis will provide a strict analysis of both RCRA and CERCLA.

Agreement was reached. OUG IHSSs will not be transferred to OU-7.

Review and Approval of Meeting Minutes

CDPHE - Carl Spreng Carl Spreng (does not necessarily constitute agreement by the State w/ items discussed or proposed in minutes)

EPA - Arturo Duran Arturo Duran

DOE - Kurt Muenchow Kurt Muenchow

EG&G - Laurie Peterson-Wright Laurie Peterson-Wright

These signatures document attendance and not accuracy of notes.

EXPLANATION

Figure 1: This map illustrates the proposed area of contamination.

- Aluvial Well
- Weathered Bedrock Well
- Unweathered Bedrock Well
- Pond Gauge
- Gas Venting Well
- Borehole
- Soil
- Sampling Location
- CPT Location
- Surface Water
- Sampling Location
- Sediment
- Sampling Location
- Surface Water
- Diverter Ditch
- Slurry Well
- Groundwater
- Intersect System
- OU7 IHSS Boundary
- OU8 IHSS Boundary
- Ditch and Dredge Feature
- Intermittent Stream
- Dirt Road
- Approximate Extent of Adverse Impact
- East Landfill
- Pond

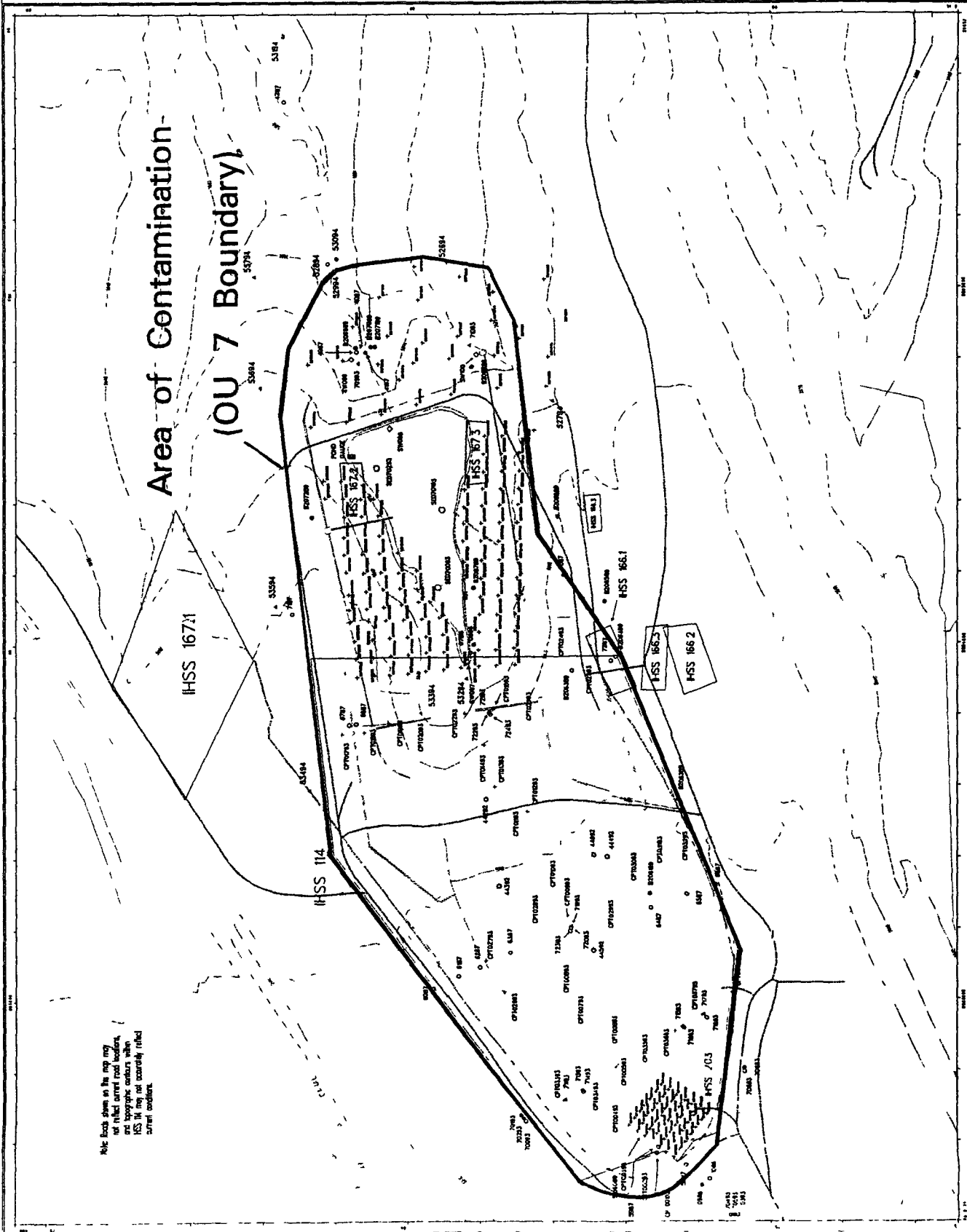
Scale = 1" = 1200'
1" = 100'

State Plane Coordinate System
Colorado Central Zone
Datum
NAD83

U.S. DEPARTMENT OF ENERGY
Noble Energy, Inc., Denver, Colorado

Proposed
Area of Contamination

Revised Work Plan
December 1994
Page C-1



Note: Each point on the map may be a labeled well location, a sampling location, or a topographic feature. IHSS 167.3 may not accurately reflect current conditions.

OUT MEETING 12/8/94

NAME	COMPANY	PHONE
Linda Guinn	EG&G	966-8559
Myra Vans	STOLLER	546-4417
Laurie J Peterson-Wright	EGG	966-8553
Peter Martin	EG&G	966-8695
Tom Lindsay	EG&G	966-6985
Judith Stewart	SAIC/ER	273-1245
Robert Muenchow	DOE	966-2184
Carl Spreng	CDPHE	692-3358
Arturo Duran	EPA	294-1080

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Abandonment of Existing Monitoring Wells

Outcome DOE/EG&G will formally propose well abandonment to CDPHE/EPA in letter form

Currently there are 59 groundwater monitoring wells (53 active and 6 abandoned) located at or near the Present Landfill. Twenty-seven were installed as RCRA regulatory wells and are currently sampled quarterly for the RCRA groundwater monitoring program at the Present Landfill. Twenty-five were installed as CERCLA characterization wells and are currently sampled quarterly for the sitewide ground water monitoring program. One was installed as a special purpose well and is also currently sampled quarterly. Six damaged RCRA-characterization wells were abandoned in 1993. The purpose of all 59 wells installed at or near the Present Landfill is summarized below.

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See notes page 4

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See notes page 4

These changes require approval from the RCRA Subpart D and F groups at CDPHE and EPA.

Disposition of Investigation-Derived Material from the Phase I RFI/RI

Outcome: DOE/EG&G will formally propose the disposition of the RCRA drums to CDPHE/EPA in letter form.

Disposition of the 227 drums containing investigation-derived material (IDM) generated by drilling activities during the Phase I RFI/RI will be presented in the IM/IRA Decision Document for Landfill Closure. No IDM drums were generated during the Phase II RFI/RI. Soil IDM has been classified in accordance with the risk-based disposition procedure in 4-H46-ENV-OPS-FO 29, *Management of Soil and Sediment Investigation-Derived Materials*.

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storage will be disposed in the landfill in accordance with 4-F99-ENV-OPS-FO 23, *Management of Soil and Sediment IDM*

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Establish the Area of Contamination

Outcome: Further discussion on this issue is required. DOE/EG&G will provide a regulatory analysis under RCRA and CERCLA to justify consolidation of materials released from the landfill.

DOE proposes to establish the area of contamination (AOC) at OU 7 as shown in the attached figure. This area includes the Present Landfill, asbestos disposal areas, pond sediments, and soils in spray evaporation areas.

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DOE proposes to cancel the transfer of OU 6 IHSSs 166 1, 166 2, 166 3, and 167 1 to OU 7. Based on the OU 6 CDPHE conservative screen results presented in a letter report to the agencies, these IHSSs are not considered a source for OU 7.

CDPHE and EPA Agreed. No Action is necessary.

Notes

Well abandonment - Arturo Duran (EPA) expressed concern that the effectiveness of the slurry wall must be assessed and some wells may be needed. EG&G will take the action to research how to measure the effectiveness of the slurry wall. Also discussed was the mechanism for proposal of well abandonment. DOE/EG&G will provide a letter proposal.

Disposition of IDM - Arturo Duran (EPA) stated that RCRA drums that meet TCLP and LDR can be disposed of in the landfill. EG&G/DOE will provide a letter proposal.

Establish Area of Concern - EG&G/DOE will provide a proposal with CERCLA and RCRA regulatory analyses to justify consolidation of the materials released from the landfill.